

How To: Improve your garden for dragonflies & damselflies



To attract breeding dragonflies and damselflies to your garden, you will need some form of a pond, as these species lay their eggs in water and spend their larval stage underwater as nymphs. Nymphs overwinter in the water, and some species take two or three years to mature and go through metamorphosis. The type of water habitat each species prefers is different - from depth, temperature, oxygen level, acidity, turbidity to the type of vegetation present.



Photo: Ken Billington



Photo: Charles J. Sharp



Photo: Alvesgaspar, All via Wikimedia Commons

Target species:

An easy way to tell dragonflies and damselflies apart is that, when resting, dragonflies hold their wings out flat, whereas damselflies tend to hold their wings closed behind them. See our [webpage](#). If you manage your pond successfully to help dragonflies, it's guaranteed it will be good for lots of other creatures as well.

Common [dragonfly species](#) in the UK include the brown hawker *Aeshna grandis*, migrant hawker *Aeshna mixta*, southern hawker *Aeshna cyanea* and the common darter *Sympetrum striolatum*. Common [damselfly species](#) in the UK include the large damselfly *Pyrhosoma nymphula*, azure damselfly *Coenagrion puella*, common blue damselfly *Enallagma cyathigerum* and the blue-tailed damselfly *Ischnura elegans*.

How to do it

In general, large ponds may support more species than small ones, but the characteristics of the pond are more important.

- Damselflies and dragonflies are great indicators of water quality, as nymphs are sensitive to pollution. Avoid filling your pond with tap water, as it contains high levels of phosphates and nitrates. Instead if you can, use rainwater to fill and top up your pond to keep the water quality suitable for damselflies and dragonflies to lay their eggs in.
- The pond should have shallow margins with plenty of submerged and emergent vegetation
- Make sure your pond gets plenty of sunshine to encourage vegetation growth and warm the water for prey insects, as most thrive better in warmer water. See our [How To: Create and maintain a pond for wildlife](#) for more information on how to make a pond in your garden.

- It's best not to have any fish in your pond, as they are the main predators of dragonfly and damselfly nymphs. It is possible for them to coexist, but only in larger ponds with complex underwater structures and vegetation that the nymphs can use as cover.
- Have some plant growth around the pond for feeding and mating insects to rest.
- Don't try to introduce dragonflies or damselflies by transferring eggs or larvae, as your pond may not be suitable, and their survival depends on whether your pond is the right habitat for them. There is also a risk of transferring invasive alien plants and amphibian disease. Highly mobile dragons and damsels will colonise naturally if they like the look of your pond.
- Take care when clearing out your pond, as dragonfly and damselfly nymphs live amongst water weeds and pond debris and you will inadvertently fish them out. Only clear small sections of the pond at a time, and leave any debris or vegetation taken from the water on the pond edge for at least 24 hours, so any trapped wildlife will have a chance to escape back into the water.



Well vegetated large garden pond with lots of habitat diversity and tall emergent plants for nymphs to ascend.

Photo: Steve Head

How easy is it to do?

Easy to Hard. Creating a large pond is a challenge as you'll need to excavate a large area of your garden, but a smaller pond can still be effective at attracting dragonflies and damselflies with much less hassle. See the links at the end for our pond creation guidance. If you already have a pond it is simply a matter of managing it well to keep it healthy.

How much will it cost?

The cost of making a pond will depend on its size - see our [How To: Create and maintain a pond for wildlife](#) for more information.

How effective is it for the target species?

VERY effective. Even small garden ponds will have the potential to attract and provide habitat for dragonflies and damselflies, and some damselflies may even use a [pond in a pot](#).

Golden rules – what the science tells us

- Dragonflies and damselflies are sensitive to pollution and water quality. Don't use pesticides and avoid using chemical fertilisers in your garden, especially on your lawn so there is no run-off into your pond. If you can use rainwater to fill your pond instead of tap water to avoid adding phosphate and nitrate nutrients.
- Apart from making a suitable pond in your garden, you can help conserve dragonflies and damselflies by not buying any peat compost - peat is harvested by digging up peat bogs which

are vital habitats for many rare dragonflies and damselflies as well as other wetland insects. See our webpage on [gardening without peat](#).

- Allow your pond to go through natural cycles of low and high water instead of continually topping it up with tap water. Level changes are natural and pond animals are adapted to it.

What to look for?

One of the most exciting wildlife sights is to watch a dragonfly nymph climb out of the pond up a reed stalk, split its skin and emerge as an adult. Dragonflies and damselflies will fly in the sun, on any warm day between April and October, but you'll see them most frequently at the height of summer. Watch them hunting over the pond and around the garden and look out for mating pairs and females egg-laying in the pond.

Things to be aware of

- Adult dragonflies and damselflies feed on other flying insects such as flies, midges and mosquitoes – making them good to have around the garden in summer!

Further information

British Dragonfly Society [website](https://british-dragonflies.org.uk/) <https://british-dragonflies.org.uk/>

Natural England booklet [Dragonflies and damselflies](#) in your garden www.wlhf.org/NE21%20Dragonflies.pdf

Our webpage introducing damselflies and dragonflies http://www.wlhf.org/odonata_intro.html

Our webpage on [dragonflies](#) www.wlhf.org/dragonflies.html

Our webpage on [damselflies](#) www.wlhf.org/damselflies.html

Our webpage on [gardening without peat](#) www.wlhf.org/Gardening_peat.html

For full advice on making garden ponds:

How to: Create and maintain [ponds for wildlife](#) www.wlhf.org/ht_ponds.pdf

How to: Make a [pond in a pot](#) www.wlhf.org/ht_pond_pot.pdf

Our introduction to [ponds and their ecology](#) www.wlhf.org/water_ecology.html

Our detailed advice on [pond creation](#) www.wlhf.org/Establishing_pond.html

Our advice on [planting-up ponds](#) www.wlhf.org/Planting_pond.html

Our advice on [managing ponds](#) www.wlhf.org/Managing_ponds.html

Details on [siting and making ponds](#) www.wlhf.org/placing_constructing_pond.pdf

Advice from the RHS:

Garden [wildlife ponds](#) www.rhs.org.uk/advice/profile?PID=622

Pond [construction and repair](#) (we **don't** recommend clay or concrete ponds)

www.rhs.org.uk/advice/profile?pid=955

Rain-fed [wildlife-friendly pond](#) step-by-step www.rhs.org.uk/advice/profile?PID=1047